

apart and mind only a collective name for the series of conditioned reflexes which enable us to fulfill the primal instinct, even in the evermore complicated relations between man and man, the foundation will be laid for a better understanding of deviations from health, be their symptoms somatic or psychic.

### CARDIAC IRREGULARITIES

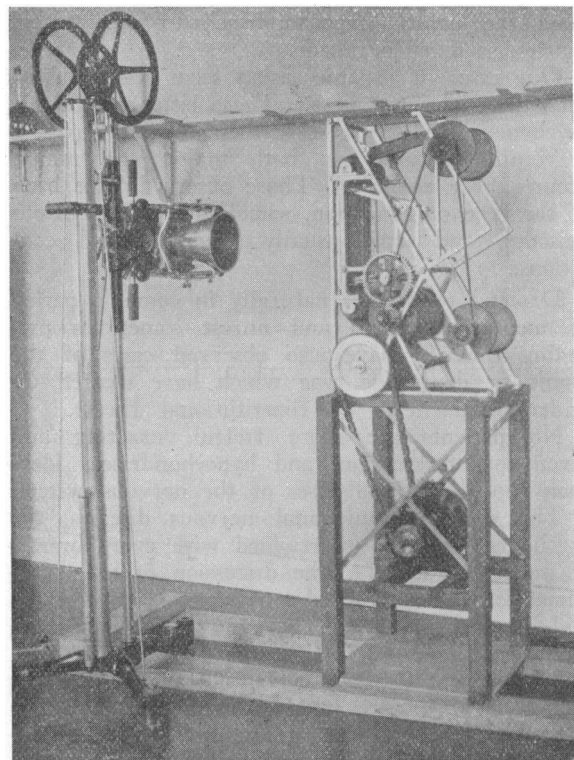
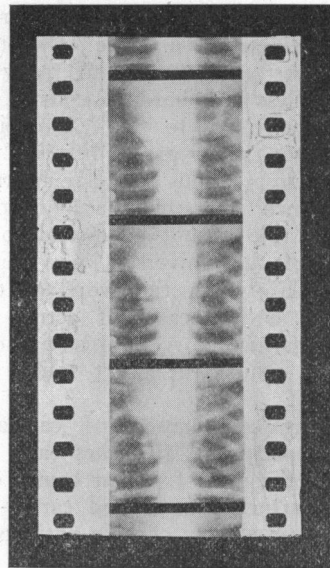
Illustration of Normal and Abnormal Mechanism of the Heart-Beat by Moving Pictures.

By WILLIAM J. KERR and H. E. RUGGLES, San Francisco, Cal.

The subject of irregularities of the heart remained more or less a mystery until graphic methods were introduced into experimental and clinical medicine. Since that time most of the irregularities have become well understood. It was formerly thought that variation in rhythm of the heart was due to damage by toxemia, or disease; but it is now definitely understood that one of the most common of the irregularities, the so-called "sinus arrhythmia," which is usually of the respiratory type, occurs mainly in young children and less frequently in adults, is of no serious consequence and does not indicate disease of the heart. The lack of understanding of this irregularity by some clinicians has been the cause of more misgivings on the part of the physician and the family than any other cardiovascular condition, unless it be the misinterpretation of the importance of certain of the so-called "functional murmurs" of the heart.

Since the introduction of the polygraph and the electrocardiograph the ordinary, or common varieties of irregularities, have become so well understood and so definitely manifested clinically that they have become easy to recognize without the aid of these precise methods. It is, however, imperative that anyone who attempts to interpret the cardiac irregularities without such aid should be familiar with the mechanism of the irregularities, as has been shown, both experimentally and clinically, by instrumental means.

However, there is a small group of irregularities which are rather rare and infrequent where we must rely upon the polygraph and the electrocardiograph for exact interpretation. By these I mean such unusual conditions as nodal rhythm, ventricular escape, block in the conduction system of the ventricles, or defective conduction in the terminal branches of the conduction system; many of the unusual tachycardias, such as true paroxysmal tachycardia and some of the unusual auricular flutters and auricular fibrillations. It was with the purpose of clarifying, in a clinical way, some of the more unusual conditions, and at the same time of confirming what we already know about the more common ones, that we thought of the possibility of utilizing the principles of the X-ray and the cinematograph. One of us has devised a motor-driven machine by which very rapid exposures of a moving X-ray film could be obtained of the human heart. The cinematograph-röntgen negatives, which may be obtained at the rate of fifteen to the second, show distinct differences from those obtained by the usual X-ray plates of the heart. By transposing to the cinematograph



film the cardiac cycle, or as many cardiac cycles as are desired, and by interpolation of duplicate negatives, the whole process of cardiac contraction can be so delayed on the screen that the detailed movement of the chambers may be possible of demonstration.

We have selected for demonstration three patients from the service of Dr. W. P. Lucas, Professor of Pediatrics, University of California Medical School, because the size of the film which we used was particularly adapted to the smaller hearts. One of the patients is that of a normal heart of a child recovering from a mild respira-

tory infection. The second patient is a boy of fourteen, who has chronic endocarditis involving the mitral valve, with considerable enlargement, and showing evidence of a moderate degree of delay in the conduction time from the auricle to the ventricle; the conduction time being between 5/25 and 6/25 of a second. The third patient is a boy of thirteen, who has chronic endocarditis involving both the mitral and aortic valves, with adhesive pericarditis, as well.

It was our purpose to study a few cases of alternation of the pulse to see if this condition could be better understood in a clinical way. The theories as to the cause of alternation of the pulse are divergent. Some contend that the alternation is due to sustained systole of the ventricle and to improper diastole resulting therefrom. Others maintain that it is due to a difference of excitability of muscle tissue, due to disease localized or scattered diffusely through the muscle. We were, however, unable to obtain any well-marked instances of alternation of the pulse at the time when our pictures were taken, but it is our intention to further develop this study along such lines.

The films should be of considerable educational value in the teaching of cardiovascular disease, particularly with reference to the irregularities, when the method has been finally perfected.

## California Association of Medical Social Workers

The organization of the medical social workers of California has been completed by the council, in conformity to the requirements of the resolution passed by the House of Delegates at the Coronado meeting. The officers of the association and the executive committee are as follows: President, Dr. Louise Morrow; Vice-President, Miss Eleanor Stockton; Secretary-Treasurer, Miss Edna J. Shirpser. Executive Committee—Dr. Mary Harris, Dr. Louise Morrow, Miss Edna J. Shirpser, Miss Clara Saunders, Miss Marguerite A. Wales, Miss Josephine Abraham, Miss Eleanor Stockton.

### CALIFORNIA ASSOCIATION OF MEDICAL SOCIAL WORKERS' PREAMBLE AND CONSTITUTION

#### PREAMBLE

For all the purposes of the California Association of Medical Social Workers, including its Preamble and Constitution, Medical Social Work is defined as social and similar technical work done by adequately trained workers in hospitals, dispensaries, offices, mercantile and industrial establishments, organizations, homes or elsewhere, under medical direction and control, as one of the agencies for the prevention and cure of disease.

Medical social workers, therefore, in the meaning of this organization, comprise the trained technical assistants to the members of the medical profession in the discharge of their duties in the prevention and treatment of disease, who subscribe to and are imbued with the same ethics, ideals and spirit of service that actuate the physician in the practice of the healing art.

As practical medical social work, as understood and practiced by members of this association, is an integral part of modern medicine, medical social workers should form an effective unit of the organized medical profession. It is, therefore, the

permanent purpose of this organization to become intimately identified with local, State and national organizations of the medical profession, devoted to improving the practice and progress of scientific medicine for the promotion and protection of the public health.

### CONSTITUTION

#### ARTICLE I

##### Name

Section 1. The name of this Association shall be the California Association of Medical Social Workers.

#### ARTICLE II

##### Purposes

Section 1. The purposes of this Association are as described in the Preamble, which is hereby made a part of the Constitution.

Additional purposes are, to encourage and assist in the proper education of students in medical social work; to establish and maintain adequate standards in medical social work; to hold meetings, conferences and otherwise promote increased efficiency and mutual benefits for members of this organization.

#### ARTICLE III

##### Membership

Section 1. Members shall be active, associate and honorary.

Sec. 2. Any person who is actively engaged in medical social work, and who by education, personality, character and experience meets the minimum requirements effective at the time of application is eligible for active membership. The minimum educational requirement for members is, that they shall have graduated from a university, college or school accredited by the Advisory Council, giving training in social work, or furnish an equivalent satisfactory to the Executive Committee. In addition, they shall be engaged in the actual practice of medical social work under approved medical supervision. Personal qualifications and experience submitted are to be passed upon by the Executive Committee. Any active member ceasing to fulfill the requirements for eligibility shall retain active membership to the end of the year.

Sec. 3. Any member of the State Medical Society or any educator or scientist who is actively interested in and has contributed to the knowledge and practice of medical social work is eligible for associate membership.

Sec. 4. Physicians or medical social workers who have rendered distinguished service to the cause of medical social work may be elected honorary members by the Executive Committee. Honorary members shall have all the rights and privileges of the association, except the rights of voting and holding office.

Sec. 5. The name of an applicant for active membership, with such other data as is required hereunder and prescribed by the Executive Committee, shall be presented in writing to the Executive Committee by an active member. Election shall be by majority of the Executive Committee.

Sec. 6. Associate members shall be nominated and elected as are active members, except that honorary or associate members may submit nominations to the Executive Committee.

Sec. 7. All nominations for honorary membership shall be made in writing at least three months before the annual meeting. Honorary members may be elected only at the annual meeting by the active members of the association, and not more than two may be elected in any one year.

#### ARTICLE IV

##### Officers and Committees

Section 1. The officers of this Association shall be a President, Vice President and a Secretary-Treasurer, who shall be elected at the annual meeting. The terms of officers shall be one year.

Sec. 2. There shall be an Executive Committee of seven members, consisting of the President,